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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 10/686,741
Filing Date: October 17, 2003
Appellant(s): NORTON ET AL.

Stephen W. Palan
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 1/12/2009 appealing from the Office action mailed 6/12/2008.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

No amendment after final has been filed.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

6,138,158	Boyle et al.	10-2000

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1-36 are rejected under 35 U.S.C. 102(b) as being anticipated by Boyle et al. (US 6,138,158).

In regard to claim 1, Boyle disclosed:

calculating a plurality of destination nodes based on a subscriber identifier and a plurality of addressing functions, each addressing function corresponding to a topology of the network at a particular moment in time. Column 8, lines 1-13

querying the calculated plurality of destination nodes for a message Column 14, lines 21-37

In regard to claim 2, Boyle disclosed:

receiving a message retrieval request at an initial retrieval node of the network, the message retrieval request including the subscriber identifier; column 14, lines 21-37

In regard to claim 3, Boyle disclosed:

receiving the message from one of the calculated plurality of destination nodes; and column 14, lines 29-38

forwarding the message toward an originator of the message retrieval request. Column 14, lines 29-38

In regard to claim 4, Boyle disclosed:

the originator of the message retrieval request is a wireless handset, the message being at least one of a short messaging service message and a mail digest. Column 12, lines 54-67

In regard to claim 5, Boyle disclosed:

the originator of the message retrieval request is a wireless handset, the message being a long messaging service message. Column 12, lines 54-67

In regard to claim 6, Boyle disclosed:

receiving a plurality of messages from the calculated plurality of destination nodes; and column 14, lines 29-39

forwarding the plurality of messages toward the originator of the message retrieval request. Column 14, lines 29-38

In regard to claim 7, Boyle disclosed:

receiving the message at an initial storage node, the message including the subscriber identifier; column 7, lines 13-39

calculating an actual destination node based on the subscriber identifier and a current addressing function corresponding to a current topology of the network; and column 11, line 38 – column 12, line 14

sending the message to the actual destination node for storage, the calculated plurality of destination nodes including the actual destination node and the plurality of addressing functions including the current addressing function. Column 14, lines 29-38

In regard to claim 8, Boyle disclosed:

storing the message to an internal queue of the initial storage node; and column 12, lines 15-37

removing the message from the internal queue if a confirmation of receipt is received from the actual destination node. Column 12, lines 15-43

In regard to claim 9, Boyle disclosed:

sending a message waiting indicator message toward a device associated with the subscriber identifier. Column 12, lines 15-22

In regard to claim 10, Boyle disclosed:

expiring one or more of the plurality of addressing functions based on a message validity period. Column 16, lines 11-13

In regard to claim 11, Boyle disclosed:

expiring one or more of the plurality of addressing functions for an expired destination node based on a local expiration signal from the expired destination node. Column 16, lines 11-13

In regard to claim 12, Boyle disclosed:

applying a time stamp to each of the plurality of addressing functions; and column 12, line 3 – notification sequence number

delivering each of the plurality of addressing functions to the plurality of destination nodes before activation. Column 13, lines 57-67

In regard to claim 13, Boyle disclosed:

the addressing functions are hash functions. Column 16, lines 55-65

Claim 14 has substantially the same limitations as claims 1-3, 7-9, and 13.

Claim 15 has substantially the same limitations as claim 4.

Claim 16 has substantially the same limitations as claim 5.

Claim 17 has substantially the same limitations as claim 6.

Claim 18 has substantially the same limitations as claim 10.

Claim 19 has substantially the same limitations as claim 11.

Claim 20 has substantially the same limitations as claim 12.

Claims 21-33 are substantially the same as claims 1-13.

In regard to claim 34, Boyle disclosed:

receiving, by a first node that stores messages, a message retrieval request; column 14, lines 21-37

calculating, by the first node using a subscriber identifier and a first addressing function, a second node that stores messages; column 14, lines 21-37

calculating, by the first node using the subscriber identifier and a second addressing function, a third node that stores messages; and column 14, lines 21-37

forwarding, by the first node, the message retrieval request to the second and third nodes. Column 14, lines 29-38

In regard to claim 35, Boyle disclosed:

the first and second addressing functions correspond to a topology of the network at different moments in time. Column 14, lines 21-37 – comparing the device ID in the request with the device ID in the device ID list

In regard to claim 36, Boyle disclosed:

the first and second addressing functions are hash functions, and the first and second addressing functions each have a different expiration time. Column 16, lines 55-65; column 12, line 3

(10) Response to Argument

Overview of Appellant's specification

Appellant's specification (page 3 as originally filed, paragraph [0012]) states an addressing function is used "to store information to and retrieve information from the network" and "[e]ach addressing function corresponds to a topology of the network, and as nodes are added to and removed from the network new addressing functions are established."

Appellant's specification (page 3 as originally filed, paragraph [0012]) states a "message is sent to [a] actual destination node for storage." There is no definition of destination node, or node, present in the specification.

Independent Claim 1

Claim 1 is a method of managing a network, comprising:

calculating a plurality of destination nodes based on a subscriber identifier and a plurality of addressing functions, each addressing function corresponding to a topology of the network at a particular moment in time;

querying the calculated plurality of destination nodes for a message.

Summary of Boyle

Boyle determines that mobile devices which have subscribed to a link server need updates of certain information the mobile devices have subscribed to. As those mobile devices are sent the updates, the mobile devices are queried whether or not the message is received. If the update message is received, the mobile device sends a confirmation notification to the link server. As confirmation notifications are received by

the link server, the link server changes the topology of mobile devices that must still receive the update. The link server changes the topology by removing mobile devices that have confirmed receipt of the update from the update queue.

Boyle is an ongoing process where the devices are calculated before sending the update, and subsequently queried for a notification of receipt of the update. Applicant's independent claims require no more than this, and a broad reading of these two claim limitations necessitated the rejection under Boyle. Boyle will be examined in its specifics to aid the Board in its review of Appellant's arguments.

1. Appellant argues that Boyle fails to disclose calculating a plurality of nodes or performing such a calculation based on a subscriber ID and a plurality of addressing functions in regard to claims 1 and 21.

A user subscribes to an information update. Column 8, lines 7-9. This is the *subscriber ID.* Subscriber ID is further shown in column 8, lines 39-46 and column 11, lines 30-37.

At a particular time, the electronic connection is measured. Boyle, column 8, line 4. Two channels are used in Boyle - a wideband channel over 14400 bps and a narrowband channel at 400 bps. Boyle, column 7, lines 57-59. Using the narrowband or wideband channel is determined by both a device ID and a subscriber ID. Column 8, lines 33-64. Both the device ID and subscriber ID are used to establish the connection between the mobile device and the link server - *a plurality of addressing functions, each addressing function corresponding to a topology of the network at a particular*

moment in time. As shown in column 12, lines 23-37, if a mobile device is not on, the notification is not received and will be sent later.

As shown in column 11, lines 30-56, as the link server decides what mobile devices have received the notification, those devices are removed from a queue list. Over time, this changes the topology of the network and the plurality of destination nodes (*mobile devices* or the *link server*).

The confirmation of delivery notification is *querying the calculated plurality of destination nodes for a message*. Column 11, lines 40-50.

2. Appellant argues the message characteristics in Boyle are not applicable to the claimed message in Boyle in regard to claims 4, 5, 8, 10-12, 15, 16, 18-20, 24, 25, and 29-32

a. Appellant argues Boyle failed to teach expiring one or more of the plurality of addressing functions based on a message validity period.

As applied above, the message is the update sent to each of the mobile devices. Column 16, lines 11-13 refers to an expiration time to send the message to the mobile device.

b. Appellant argues Boyle failed to teach expiring one or more of the plurality of addressing functions for an expired destination node based on a local expiration signal from the expired destination node.

As applied above, the destination node is the mobile device. The confirmation notification from the mobile device verifying receipt of the update is the local expiration signal from the expired destination node. When the mobile

device has received the update, the confirmation notification is sent to the link server. The link server removes the confirmed mobile device from receiving further updates, thus expiring the addressing function for the destination node. Column 16, lines 11-13 disclose this timeout function.

c. Appellant argues Boyle failed to teach applying a time stamp to each of the plurality of addressing functions.

As applied above, the addressing function is the particular mobile device which is to receive the update. The sequence numbers in column 12, line 3, denote the order in which the update is to be sent to the mobile device in turn. The sequence number is an order for sending the updates. The sequence must take place in order. At time 1, sequence 1 would take place to update mobile device 1. After sequence 1 takes place, time 2 occurs where sequence 2 takes place to update mobile device 2. The sequence number denotes a temporal sequence of updates, which is a time stamp. Appellant has not defined a time stamp in the specification.

3. Appellant argues Boyle failed to teach the addressing functions are hash functions as applied to claims 13, 14 and 33

The notifications between the mobile device and the updated device are encrypted - a hash function. Column 16, lines 58-61.

4. Appellant argues Boyle failed to teach a first node that calculates a second and third node that store messages using a subscriber identifier and respective first and second addressing functions as applied to claim 34.

In claim 34, the first node is the link server. The second node is one mobile device, and the third node is a second mobile device. As shown in the analysis of claim 1, the link server is querying whether the mobile devices have received the update. The update is sent, and a confirmation notification is expected to verify receipt of the update. When the update is transmitted from the link server to the mobile devices, the *message retrieval request* for the confirmation notification is *forwarded* to both mobile devices, or the *second and third nodes.*

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

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